REMARKS

Claims 1, 2, 5, 8, 9, 12-14, 18, 19, 27-31, and 33-41 are pending. Claims 1, 5, 8, 12, 18, and 19 are amended in this response. No new matter is added. Claims 1, 5, 8, 12, and 18 are independent claims. Reconsideration and allowance of the above-referenced application are respectfully requested.

35 U.S.C. § 112

Claims 1, 5, 8, 12, 19, 27, 30, 35, and 39 stand rejected under 35 U.S.C. § 112, 1st paragraph, for allegedly being not supported by the written description. Applicants respectfully disagree. As described below, each of these claims is fully supported by the Specification.

Claim 1 describes a method including receiving a plurality of packets at a plurality of first locations in a first stacked switching device operatively coupled to a second stacked switching device. *See*, e.g., Specification, page 4, lines 14-17, and fig. 2 (showing two ASICs operatively coupled to each other). In addition, the Specification describes that multiple ASICs can be operatively coupled to each other to form switching layers that can be stacked on top of each other. *See*, e.g., Specification, page 16, line 8 – page 17, line 7. Thus, the Specification describes a first stacked switching device operatively coupled to a second stacked switching device.

In addition, claim 1 describes receiving a message on the first stacked switching device from the second stacked switching device. *See*, e.g., Specification, page 7, line 17-22, page 9, lines 8-13, page 9, lines 15-23. As described in claim 1, the message identifies a congested second location in the second stacked switching device. Further, the second switching device transmits the message upon determining that the second location is congested. In this regard, the Specification states:

> For example, since link 48 is providing the congesting packet flows 52, 54, the message manager 64 sends a message 68 that identifies congested ASIC port 6 over the same link 48 to switching ASIC 40.

See, Specification, page 9, line 15-18.

Because the Specification describes a message identifying a congested location in the stacked switching device, the Specification describes "the message identifying a

congested second location in the second stacked switching device" as recited in claim 1.

Further, claim 1 includes determining that a destination location of a first packet of the received plurality of packets is the congested second location. The Specification describes queues that store packets destined to be sent to ASIC ports 5 and 6. *See* Specification, page 14, line 23 – page 15, line 2. The Specification also describes that, upon receiving a message that ASIC port 6 is congested, a link controller 72 checks the packets stored in the queues to determine if one or more of the packets are intended to be sent to ASIC port 6. *See*, Specification, page 15, lines 3-6. Thus, the Specification describes "determining that a destination location of a first packet of the received plurality of packets is the congested second location," as recited in claim 1.

Because all the features recited in claim 1 are fully supported by the Specification, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. § 112, 1st paragraph be withdrawn. Applicants also request that the rejections of claims 8 and 12 under 35 U.S.C. § 112, 1st paragraph, be withdrawn at least for similar reasons.

Claim 5 describes a method including receiving a multiple packets on a first stacked switching device from a second stacked switching device. The multiple packets are for transmitting to multiple first locations in the first stacked switching device. Each stacked switching device includes multiple switching devices stacked on top of each other. These features of claim 5 are fully described in the Specification. *See*, e.g., page 16, line 8 – page 17, line 7, page 9, line 15-18.

Also, claim 5 includes transmitting a message to the second stacked switching device identifying the congested location to temporarily stop packet transmission. *See*, e.g., Specification, page 7, lines 17-20. In addition, claim 5 describes that the message includes a frame including multiple segments. A first segment of the multiple segments identifies the congested location and a second segment of the multiple segments identifies the first switching device. These features are fully described in the Specification. In this regard, the Specification describes an Ethernet PAUSE frame 82. The frame 82 includes segments 84, 86, 88, 90, and 92. *See*, Specification, page 11, lines 15-18, figure 4. Segment 86 identifies the source of the PAUSE frame and

segment 84 identifies the switching ASIC 40 to which the PAUSE frame 82 is being sent. *See,* e.g., Specification, page 12, lines 3 – 12. Thus, all features of claim 5 are fully described in the Specification. Accordingly, Applicants respectfully request that the rejection of claim 5 under 35 U.S.C. § 112, 1st paragraph be withdrawn. Applicants also request that the rejection of claim 19 under 35 U.S.C. § 112, 1st paragraph be withdrawn at least for reasons similar to claim 5.

Claim 13 recites "transmitting the message from the second stacked switching device to a third stacked switching device." The Specification states, in part:

> Referring to FIG. 6, while the network switch 24 includes two switching ASIC 40, 42 for directing packets to the appropriate ASIC ports, in other arrangements more switching ASICs or systems of switching ASICs or other switching devices (e.g., switch fabrics, etc.) are included in a network switch or other packet-forwarding device. In general, by increasing the number of switching ASICs, the number of ports to support packet passing also increases so that e.g., twenty-four, forty-eight, or other number of ports can be provided by the network switch. In this example, an array of four switching ASICs is included in one switching layer 110 for use in a network switch. Additionally, the switching layer 110 is in communication with and stacked upon another switching layer 112 to provide an exemplary multi-layer design. Furthermore, another multi-layer stack 114 of switching layers provides additional ports and is in communication with the switching layers 110, 112 to produce a multi-layer switching ASIC system 116. Along with implementing multi-layer switching ASICs, or arrays of multi-layer switching ASICs, in some arrangements other two- and three-dimensional design layouts are used in network switch designs. For example, tree structures, modules, and other design techniques are used individually or in combination with the switching ASICs or switching ASIC arrays. (Emphasis added).

See, Specification, page 16, line 8 – page 17, line 7.

As described in the Specification, multiple ASICs can be operatively coupled to each other to form a network switch or other packet-forwarding device. Further, the Specification describes that the switching layer can be stacked upon each other to provide a multi-layer design. The Specification describes two switching ASICs 40 and 42, shown in FIGs. 2 and 3B, that are operatively coupled to each other. Because the Specification describes operatively coupling switching ASICs, a person skilled in the art can immediately recognize that each of the switching ASICs 40 and 42 can be operatively coupled to a third switching ASIC and that the third switching ASIC can be a

stacked switching device. Thus, claim 13 is fully supported by the Specification, and, accordingly, the rejection of claim 13 under 35 U.S.C. § 101, 1st paragraph should be withdrawn.

Applicants also request that the rejection of claim 12 under 35 U.S.C. § 112, 1st paragraph be withdrawn at least for reasons similar to claim 5.

Claim 27 recites, in part, "wherein slowing packet transmission comprises stopping packet transmission from the first stacked switching device to the congested second location in the stacked second switching device." Claim 27 is fully supported by the Specification. In this regard, the Specification states "To regulate the packet flows 52, 54, based on the message, switching ASIC 40 slows or stops the packet flows from causing the congestion on ASIC port 6." (Emphasis added). Thus, the Specification fully describes that slowing packet transmission includes stopping packet transmission from the first stacked switching device to the congested second location in the stacked second switching device. Accordingly, Applicants respectfully request that the rejection of claim 27 under 35 U.S.C. § 112, 1st paragraph, be withdrawn. Applicants also request that the rejection of claim 30 also be withdrawn at least for reasons similar to claim 27.

Claim 35 recites, in part, "wherein the frame comprises a first segment identifying the second stacked switching device." Claim 35 is fully described in the Specification. In this regard, the Specification states "In this example, the Ethernet pause frame 82 includes a destination address segment 84 that identifies, for example, the switching ASIC 40 being sent the pause frame or other connected (e.g., by high capacity link 48) endpoints." (Emphasis added). *See*, Specification, page 12, lines 3-6. Thus, the Specification describes that the claimed frame (Ethernet pause frame 82) includes a segment (a destination address segment 84) that identifies the second stacked switching device (ASIC 40). Accordingly, Applicants respectfully request that the rejections of claims 35 and 39 under 35 U.S.C. § 112, 1st paragraph, be withdrawn.

35 U.S.C. § 103

Claims 1, 2, 5, 8, 9, 12-14, 18, 19, 27-31, and 33-41 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mackay (US 6,600,727) and Chen

(US 2004/0174890). Applicants respectfully disagree. The proposed combination of Mackay and Chen does not disclose all the features of the claimed subject matter for the following reasons.

With respect to claim 1, the proposed combination of Mackay and Chen does not describe the claimed "receiving a message on the first stacked switching device from the second stacked switching device, the message identifying a congested second location in the second stacked switching device, the message transmitted by the second stacked switching device upon determining that the second location is congested."

The Office concedes that Mackay does not teach this feature of claim 1[1], and relies on Chen to teach this feature. Chen describes a first network switch chip cascaded with a second network switch chip, each chip including a high-speed network port and multiple connection ports. *See*, Chen at Abstract. Chen describes that the network switch chips can perform congestion control according to congestion information of a destination port in one chip to which packets from the other chip are transmitted. *See,* Chen, [0023]. Chen does not describe or suggest that a network switch chip transmits a message to the other network switch chip upon determining that a port in the network switch chip is congested, as claimed.

In this regard, Chen describes signal lines 81, 82 used to send data packets or commands between the network switch chips. *See*, Chen, [0025]. Chen describes that the signals transmitted through the signal lines are defined as command bits to determine the signal type (data packet or command). *See*, Chen, [0026]. Chen's data packet or command is not the claimed message because neither Chen's data packet nor Chen's command are received from a stacked switching device that has determined that a port is congested. Rather, Chen's data packet and command are transmitted to and from the two network switch chips as a matter of course.

Chen describes transmitting data packets or commands between the network switch chips through the buses 83 and 84, and using signal lines 81 and 82 to

[1] Mackay does not teach a congestion control mechanism comprises steps of queuing the received plurality of packets in at least one queue; receiving a message one [sic] the first stacked switching device from the stacked switching device, the message identifying a congested second location in the second stacked switching device; determining that a destination location of a first packet of the received plurality of packets is the congested second location; and holding the first packet in the at least one queue. Office Action, page 6, 1st paragraph.

discriminate whether the current signal is a data packet or a command for remote party. *See*, e.g., Chen, [0025]. Chen's commands include an idle command, a start of frame (SOF), an intra-packet gap command, and the like. *See*, e.g., Chen, Table 1. Further, Chen's commands include flow control status report that is used to inform the remote chip about the flow control status of ports at the local chip (*see*, Chen, [0029], Table 1). Chen does not describe that the flow control status report is sent when a network switch chip detects congestion in a port. Thus, Chen's data packets or commands are transmitted between Chen's two network switch chips as a matter of course. In other words, there is no causal linkage between a congestion of a port in Chen's network switch chip and the transmission of Chen's commands via signal lines 81 and 82. This is further evidenced by the fact that Chen's signal lines 81 and 82 transmitted even when no command is to be executed. See, e.g., Chen, Table 1 (showing a bus signal corresponding to an idle command).

In contrast, the claimed message is transmitted and received when a port is congested. Thus, neither Chen's data packet nor Chen's command is the claimed message. Therefore, Chen does not describe or suggest "receiving a message on the first stacked switching device from the second stacked switching device, the message identifying a congested second location in the second stacked switching device, , the message transmitted by the second stacked switching device upon a determination that the second location is congested," as recited in claim 1.

Accordingly, claim 1 and all claims dependent patentable over the proposed combination of Mackay and Chen. Claims 5, 8, 12, and 18, and all claims that depend from each of these independent claims are also patentable over the proposed combination of Mackay and Chen at least for similar reasons and for the additional recitations that they contain.

CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the remarks made above may not be exhaustive, there may be reasons for patentability of

any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant asks that all claims be allowed. Please apply any credits or additional charges to deposit account 06-1050.

Respectfully submitted,

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